



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

Molly Joseph Ward  
Secretary of Natural Resources

SOUTHWEST REGIONAL OFFICE  
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David K. Paylor  
Director

Jeffrey Hurst  
Regional Director

July 12, 2017

Mr. Rodney Poe  
Vice President  
Vaughan-Bassett Furniture Company, Inc.  
300 East Grayson Street  
Galax, Virginia 24333

Location: Galax, VA  
Registration No. 10308  
Facility ID No. 51-640-00003

Dear Mr. Poe:

Attached is a renewal Title V permit to operate your facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all conditions carefully.

This approval to operate does not relieve Vaughan-Bassett Furniture Company of the responsibility to comply with all other local, state, and federal permit regulations.

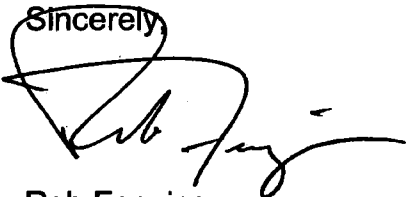
Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director  
Department of Environmental Quality  
P. O. Box 1105  
Richmond, VA 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Tom Derting at (276) 676-4831.

Sincerely,  
  
Rob Feagins  
Air Permit Manager

GRF/TMD/td/P5-10308-17.docx

Attachment: Permit

- c: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Permits and Technical Assessment Branch (3AP11), U.S. EPA, Region III  
(electronic file submission)



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## Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.11322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Vaughan-Bassett Furniture Company, Inc.
Facility Location:	300 E. Grayson Street, Galax, Virginia, 24333
DEQ Registration No:	10308
Permit Number:	SWRO10308
Approval Date:	July 12, 2017
Effective Date:	July 12, 2017
Expiration Date:	July 11, 2022

Jeffrey Hurst, Director – Southwest Regional Office  
Department of Environmental Quality

Attachments: Table of Contents, 2 pages  
Permit Conditions, 56 pages

Vaughan-Bassett Furniture Company, Inc.  
Title V Operating Permit Table of Contents

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## I. Facility Information

### Permittee

Vaughan-Bassett Furniture Company, Inc.  
300 E. Grayson Street  
Galax, VA 24333

### Responsible Official

Mr. Rodney Poe  
Vice President  
(276) 236-6161

### Contact Person

Mr. Barry A. Branscome  
Vice President, Director of  
Environmental Compliance  
(276) 236-6161

DEQ Plant Identification Number: 51-640-00003

Facility Description: SIC 2511 - Wood Household Furniture, Except Upholstered (except wood box spring frames)  
NAICS 337122 - Nonupholstered Wood Household Furniture Manufacturing

Vaughan-Bassett Furniture Company manufactures wooden furniture from raw lumber at their plant, in Galax, Virginia. Raw lumber is delivered by truck and allowed to dry in the open air for several weeks. The lumber is then placed in one of the eleven kilns located on site for approximately two weeks to reduce the final wood moisture content to the desired level. The plant also may receive some pre-dried lumber that bypasses the drying operations and goes directly to processing.

The dried lumber is passed through various sawing, planing, sanding, and gluing operations to produce the desired furniture components. Nine fabric filters are used to control particulate emissions from the various pieces of woodworking equipment.

There are four wood/coal-fired boilers on site – two are existing (pre-1972) and two are NSR-permitted. The two existing boilers (B-1 and B-2) are “limited-use boilers” rated at 21.776 and 19.16 MMBtu/hr, respectively, and each is equipped with a single multiclone collector. The two NSR-permitted boilers (B-3 and B-4) are rated at 27 and 28 MMBtu/hr, respectively, and each utilizes oxygen trim systems and dual multiclones in series. The boilers produce steam, which is used to heat the kilns and drying ovens on the finishing line, as well as provide general heat for the facility. Wood offal generated by the woodworking equipment provides the fuel for the wood/coal-fired boilers.

Gluing operations are conducted throughout the manufacturing process. Adhesives are used in furniture assembly, attaching chipboard and plywood backings, panel veneering (consisting of a single glue spray booth), rimming, and edging, laminating, and furniture repair. The various adhesives may be applied by brushing, spraying, cold presses, roll coaters, hot presses, or applied directly from the bottle.

After the furniture components are assembled, they are conveyed to the finishing area, where multiple coatings are applied to produce the desired color and luster. The coatings may be applied using a variety of methods including hand wiping, brushing, spraying, flat line printing, roll coating,

silkscreen printing, stenciling, and dipping. The twelve spray booths on the finishing line incorporate both HVLP (high volume/low pressure) and airless spray guns to apply the fillers, wood preservatives, stains, toners, glazes, washcoats, sealers, and lacquers. Finishing operations also include the drying and curing of the coatings by air drying (flash-off) and heat (ovens).

Paper filters and metal baffles are used to control particulate emissions from the finishing spray booths. There are no volatile organic compound (VOC) control devices.

Emission sources at the facility include the boilers, dry kilns, woodworking operations, veneer glue spray booth, and finishing operations.

The facility is a Title V major source of SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, methanol, toluene, and total hazardous air pollutant (HAP) emissions. This source is located in an attainment area for all criteria pollutants. The facility is permitted under a NSR permit dated 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011) and a federally-enforceable State Operating Permit dated January 18, 2017.

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
B-1	BS-1	Combustion Engineering Wood/Coal-Fired Boiler (Constructed prior to 1970)	21.776 MMBtu/hr	Zurn Multiclone	CD-1	Particulate	SOP dated 1/18/2017
B-2	BS-2	Combustion Engineering Wood/Coal-Fired Boiler (Constructed prior to 1972)	19.16 MMBtu/hr	Zurn Multiclone	CD-2	Particulate	
B-3	BS-3	Keeler CP-Type wood/coal-fired boiler (Date of Construction – 1986)	27 MMBtu/hr	(2) Barron Multiclones	CD-3, CD-4	Particulate	NSR dated 9/11/02 (as amended 12/06/02, 4/23/03, 4/29/03, 5/14/03, 1/25/07, & 10/24/2011)
B-4	BS-4	English SF-Type wood/coal-fired boiler (NSPS) (Date of Construction – 1997)	28 MMBtu/hr	(2) Barron Multiclones	CD-5, CD-6	Particulate	
Dry Kilns							
DK-1	-	Dry Kiln	80,000 bd.ft.	-	-	-	N/A
DK-2	-	Dry Kiln	80,000 bd.ft.	-	-	-	
DK-3	-	Dry Kiln	80,000 bd.ft.	-	-	-	
DK-4	-	Dry Kiln	100,000 bd.ft.	-	-	-	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
DK-5	-	Dry Kiln	100,000 bd.ft.	-	-	-	NSR dated 9/11/02 (as amended 12/06/02, 4/23/03, 4/29/03, 5/14/03, 1/25/07, & 10/24/2011)
DK-6	-	Dry Kiln	100,000 bd.ft.	-	-	-	
DK-7	-	Dry Kiln	100,000 bd.ft.	-	-	-	
DK-8	-	Dry Kiln	110,000 bd.ft.	-	-	-	
DK-9	-	Dry Kiln	110,000 bd.ft.	-	-	-	
DK-10	-	Dry Kiln	110,000 bd.ft.	-	-	-	
DK-11	-	Dry Kiln	110,000 bd.ft.	-	-	-	
Woodworking Equipment							
WW-1	BFS-1	All Woodworking Operations	7163 ft² cloth area	Mac Bagfilter (144MCF494)	BF-1	Particulate	NSR dated 9/11/02 (as amended 12/06/02, 4/23/03, 4/29/03, 5/14/03, 1/25/07, & 10/24/2011)
	BFS-2		4892 ft² cloth area	Carter Day Bagfilter (376-10RF)	BF-2	Particulate	
	BFS-3		4892 ft² cloth area	Carter Day Bagfilter (376-10RF)	BF-3	Particulate	
	BFS-4		4892 ft² cloth area	Carter Day Bagfilter (376-10RF)	BF-4	Particulate	
	BFS-5		4892 ft² cloth area	Torit Day Bagfilter (RA376-18)	BF-5	Particulate	
	BFS-6		7667 ft² cloth area	Pneumafil Cartridge (13.5-460-75)	BF-6	Particulate	
	BFS-7		6297 ft² cloth area	Donaldson Day Bagfilter (484RF10)	BF-7	Particulate	
	BFS-8		3591 ft² cloth area	Torit Day Bagfilter (276RAW10)	BF-8	Particulate	
	BFS-9		8460 ft² cloth area	Pneumafil Bagfilter (16.0-564-12)	BF-9	Particulate	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Veneer (Glue Spray Booth) Operations</b>							
G-1	GS-1	Glue Spray Booth	-	-	-	-	N/A
<b>Finishing Operations</b>							
SF-1	SFS-1 through SFS-31	Finishing line exhaust stacks	-	Metal Baffles	SFCD-1 to SFCD-12	Particulate	N/A

### **III. Fuel Burning Equipment Requirements – (emission unit ID#s B-1, B-2, B-3, and B-4)**

- 1. Fuel Burning Equipment Requirements – (B-1 and B-2) – Limitations** - Particulate emissions from the 21.776 MMBtu/hr (B-1) and the 19.16 MMBtu/hr (B-2) Combustion Engineering wood/coal-fired boilers shall not exceed 0.42 lbs/MMBtu each.  
(9 VAC 5-40-900 and 9 VAC 5-80-110)
- 2. Fuel Burning Equipment Requirements – (B-1) – Limitations** - Sulfur dioxide (SO<sub>2</sub>) emissions from the 21.776 MMBtu/hr Combustion Engineering wood/coal-fired boiler (B-1) shall not exceed 57.49 lbs/hr.  
(9 VAC 5-40-930 and 9 VAC 5-80-110)
- 3. Fuel Burning Equipment Requirements – (B-2) – Limitations** - Sulfur dioxide (SO<sub>2</sub>) emissions from the 19.16 MMBtu/hr Combustion Engineering wood/coal-fired boiler (B-2) shall not exceed 50.58 lbs/hr.  
(9 VAC 5-40-930 and 9 VAC 5-80-110)
- 4. Fuel Burning Equipment Requirements – (B-1 and B-2) – Limitations** - Visible emissions from the exhausts of the 21.776 MMBtu/hr (B-1) and the 19.16 MMBtu/hr (B-2) Combustion Engineering wood/coal-fired boilers shall not exceed twenty percent (20%) opacity, except during one six minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-40-940 and 9 VAC 5-80-110)
- 5. Fuel Burning Equipment Requirements – (B-1 and B-2) – Limitations** - The annual capacity factors for the 21.776 MMBtu/hr Combustion Engineering wood/coal-fired boiler (B-1) and the 19.16 MMBtu/hr Combustion Engineering wood/coal-fired boiler (B-2) shall each be less than or equal to 10% (0.10). The annual capacity factor for each unit is the ratio between the actual heat input to the boiler from the fuels burned during a calendar year and the potential heat input to the boiler had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.  
(9 VAC 5-80-110 and Condition 1 of the SOP issued 1/18/2017)
- 6. Fuel Burning Equipment Requirements – (B-3) – Limitations** - Particulate emissions from the 27 MMBtu/hr Keeler CP-type wood/coal-fired boiler (B-3) shall be controlled by two (2) Barron multiclones in series, or equivalent. The multiclones shall be provided with adequate access for inspection.  
(9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 3 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
- 7. Fuel Burning Equipment Requirements – (B-4) – Limitations** - Particulate emissions from the 28 MMBtu/hr English SF-type wood/coal-fired boiler (B-4) shall be controlled by two (2) Barron multiclones in series, or equivalent. The multiclones shall be provided with adequate access for inspection.  
(9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 4 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

8. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice, using appropriate methods. Test ports shall be provided in the multiclone exhausts of the:
- a. 27 MMBtu/hr Keeler CP-type wood/coal-fired boiler (B-3); and
  - b. 28 MMBtu/hr English SF-type wood/coal-fired boiler (B-4).
- (9 VAC 5-50-30 F, 9 VAC 5-80-110, and Condition 8 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
9. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** - The approved fuels for the 27 MMBtu/hr Keeler CP-type boiler (B-3) and the 28 MMBtu/hr English SF-type boiler (B-4) are wood and coal. A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 11 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
10. **Fuel Burning Equipment Requirements – (B-3) – Limitations** - The 27 MMBtu/hr Keeler CP-type boiler (B-3) shall consume no more than 6065 tons of wood per year and no more than 800 tons of coal per year. Annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period. (9 VAC 5-80-110, and Condition 12 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
11. **Fuel Burning Equipment Requirements – (B-4) – Limitations** - The 28 MMBtu/hr English SF-type boiler (B-4) shall consume no more than 7400 tons of wood per year and no more than 1500 tons of coal per year. Annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period. (9 VAC 5-80-110 and Condition 13 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
12. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** - The wood to be burned in the 27 MMBtu/hr Keeler CP-type (B-3) and the 28 MMBtu/hr English SF-type boiler (B-4) shall exclude any wood that contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates. (9 VAC 5-80-110 and Condition 14 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
13. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** - The sulfur content of the coal to be burned in the 27 MMBtu/hr Keeler CP-type boiler (B-3) and the 28 MMBtu/hr English SF-type boiler (B-4) shall not exceed 0.8 percent by weight per shipment. (9 VAC 5-80-110 and Condition 15 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
14. **Fuel Burning Equipment Requirements – (B-3) – Limitations** - Emissions from the operation of the 27 MMBtu/hr Keeler CP-Type boiler (B-3) shall not exceed the limits specified below:

Particulate Matter	0.30 lbs/MMBtu		15.00 tons/yr
PM-10 (filterable)		4.16 lbs/hr	8.95 tons/yr
Sulfur Dioxide (SO <sub>2</sub> )	1.20 lbs/MMBtu		13.37 tons/yr

Nitrogen Oxides (as NO <sub>2</sub> )	14.88 lbs/hr	29.37 tons/yr
Carbon Monoxide (CO)	22.95 lbs/hr	43.24 tons/yr
Volatile Organic Compounds (VOC)	1.03 lbs/hr	1.87 tons/yr

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period. (9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 18 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

15. **Fuel Burning Equipment Requirements – (B-4) – Limitations** - Emissions from the operation of the 28 MMBtu/hr English SF-Type boiler (B-4) shall not exceed the limits specified below:

Particulate Matter	0.30 lbs/MMBtu	23.14 tons/yr
PM-10 (filterable)	4.31 lbs/hr	11.89 tons/yr
Sulfur Dioxide (SO <sub>2</sub> )	1.20 lbs/MMBtu	24.28 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	15.43 lbs/hr	39.51 tons/yr
Carbon Monoxide (CO)	23.80 lbs/hr	54.07 tons/yr
Volatile Organic Compounds (VOC)	1.07 lbs/hr	2.30 tons/yr

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period. (9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-80-110, and Condition 19 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

16. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** – The permittee shall comply with the following emission standards for boilers B-3 and B-4, as specified in Table 2 of MACT DDDDD:

Hydrogen Chloride (HCl)	0.022 lbs/MMBtu
Mercury (Hg)	5.70E-06 lbs/MMBtu
Carbon Monoxide (CO)	460 ppm @ 3% O <sub>2</sub>
PM (filterable)	0.32 lbs/MMBtu;
or Total Selected Metals (TSM):	0.0040 lbs/MMBtu

Compliance with the TSM limit may be demonstrated by compliance with the corresponding lb/MMBtu particulate matter (PM) limit. The actual filterable PM emissions from boilers B-3 and B-4 shall not exceed the corresponding limits in Conditions 14 and 15. (9 VAC 5-80-110 and 40 CFR §63.7500(a))

17. **Fuel Burning Equipment Requirements – (B-3 and B-4) – Limitations** - Visible emissions from the 27 MMBtu/hr Keeler CP-Type boiler (B-3) and the 28 MMBtu/hr English SF-Type boiler (B-4) exhausts shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. (9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 21 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

**18. Fuel Burning Equipment Requirements - (B-3 and B-4) – Limitations** – The permittee shall comply with the following operating limits for boilers B-3 and B-4, as specified in Table 4 of MACT DDDDD:

- a. The opacity of the boiler stack exhaust shall be maintained to less than or equal to ten percent (10%) opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM emission limitation (daily block average). The boiler stack opacity shall also comply with the limits specified in Condition 17.
- b. Boilers that demonstrate compliance with a performance test must maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test.  
(9 VAC 5-80-110 and 40 CFR §63.7500(a)(2))

**19. Fuel Burning Equipment Requirements – (B-4) – Limitations** - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment (28 MMBtu/hr English SF-Type boiler (B-4)), shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.  
(9 VAC 5-50-400, 9 VAC 5-50-410, 9 VAC 5-80-110, and Condition 22 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

**20. Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – General** – The permittee shall comply with the applicable requirements of National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Major Sources 40 CFR 63, Subpart DDDDD.  
(9 VAC 5-80-110, 40 CFR §63.7510 and 40 CFR §63.6(i)(6)(i))

**21. Fuel Burning Equipment Requirements - (B-1 and B-2) – Work Practice Standards** – Boilers B-1 and B-2, as limited-use boilers, must complete a tune-up every 5 years as specified in 40 CFR §63.7540.  
(9 VAC 5-80-110 and 40 CFR §63.7500(c))

**22. Fuel Burning Equipment Requirements - (B-3 and B-4) – Work Practice Standards** – The permittee shall comply with the following work practice standards for boilers B-3 and B-4, as specified in Table 3 of MACT DDDDD:

- a. Conduct a tune-up of each boiler every five (5) years.
- b. Operate all associated continuous monitoring systems (CMS) during the startup and shutdown of each boiler.
- c. The allowable startup fuels are limited to one or more of the following: natural gas, synthetic natural gas, propane, other gas 1 fuels (gaseous fuels that are not natural gas or refinery gas and do not exceed a maximum concentration of 40 µg/cubic meters of mercury), distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.

- d. Monitoring data shall be collected during periods of startup and shutdown, as specified in §63.7535(b). Records shall be kept during periods of startup and shutdown. Reports shall be provided concerning activities and periods of startup and shutdown, as specified in §63.7555.

(9 VAC 5-80-110 and 40 CFR §63.7500(a)(1))

- 23. **Fuel Burning Equipment Requirements – (B-1, B-2, B-3, and B-4) – Monitoring** - The permittee shall conduct an annual internal inspection of the multiclone particulate control systems serving each boiler that operated at least one week during the previous twelve months, in order to ensure structural integrity.

(9 VAC 5-80-110 K and Conditions 3 and 4 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

- 24. **Fuel Burning Equipment Requirements – (B-1 and B-2) – Monitoring** - The wood fuel combusted in the Combustion Engineering wood/coal-fired boilers (Reference Nos. B-1 and B-2) shall be sampled and analyzed at least once each calendar month in which one or both boilers operate, to determine the heat (Btu) content of the wood fuel. ASTM D2015 or a DEQ-approved equivalent method shall be utilized.

(9 VAC 5-80-110 and Condition 2 of the SOP issued 1/18/2017)

- 25. **Fuel Burning Equipment Requirements – (B-1 and B-2) - Monitoring** - The permittee shall obtain a certification from the coal fuel supplier with each shipment of coal. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the coal was received;
- c. The quantity of coal delivered in the shipment;
- d. The heat (Btu) content of the coal;
- e. Documentation of sampling of the coal indicating the location of the fuel when the sample was taken; and
- f. The test method used to determine the heat (Btu) content of the coal.

ASTM D2015, D3286, or a DEQ-approved equivalent method shall be utilized to determine the heat (Btu) content.

(9 VAC 5-80-110 and Condition 3 of the SOP issued 1/18/2017)

- 26. **Fuel Burning Equipment Requirements – (B-1 and B-2) – Monitoring** - The permittee shall perform visible emissions observations on the exhaust stacks of the 21.776 and 19.16 MMBtu/hr Combustion Engineering boilers (B-1 & B-2) at least once each calendar week that the units are operated for a period of time exceeding the time required for normal startup. Each visible emissions observation shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions do not appear to exceed ten percent (10%) opacity, no action shall be required. However, if the observed visible emissions appear to exceed ten percent opacity, a visible emission evaluation (VEE) shall be conducted using 40 CFR Part 60, Appendix A, Method 9 for a period of not less than 6 minutes. If the average opacity exceeds 20%, modifications and/or repairs shall be performed to correct the problem and the corrective measures shall be recorded. If such corrective action fails to remedy the opacity problem, a

VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be performed for a period of at least 18 minutes to determine compliance with the opacity limits specified in Condition 4 of this permit. The visible emissions observer shall be Method 9 certified.  
(9 VAC 5-80-110 K)

27. **Fuel Burning Equipment Requirements – (B-1 and B-2) – Monitoring** - At least one VEE in accordance with 40 CFR 60 Appendix A, Method 9 shall be performed on each boiler (B-1 and B-2) during each calendar year. This requirement is waived for any boiler that fails to operate for a period of at least one week during the calendar year. Any VEE's performed to meet the requirements of Condition 26 of this permit, will satisfy this requirement for that particular calendar year.  
(9 VAC 5-80-110 K)
28. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Monitoring** – The permittee shall install, maintain, and operate oxygen analyzer systems, as defined in 40 CFR §63.7575, on boilers B-3 and B-4. The definition of “oxygen analyzer system” includes oxygen trim systems.  
(9 VAC 5-80-110, 40 CFR §63.7525(a), and 40 CFR §63.7575)
29. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Monitoring** – The oxygen trim systems on boilers B-3 and B-4 shall be operated at an oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen in accordance with Table 7 to MACT DDDDD.  
(9 VAC 5-80-110 and 40 CFR §63.7525(a)(7))
30. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Opacity Monitoring** – The permittee shall install, maintain, certify, and operate continuous opacity monitoring systems (COMS) on boilers B-3 and B-4 according to the following procedures:
  - a. Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of Chapter 40.
  - b. A performance evaluation of each COMS must be conducted according to the requirements in §63.8(e) and according to Performance Specification 1 at appendix B to part 60 of Chapter 40.
  - c. As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
  - d. The COMS data must be reduced as specified in §63.8(g)(2).
  - e. The site-specific monitoring plan (as required by Condition 32) must include procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.
  - f. Each COMS must be operated and maintained according to the requirements in the monitoring plan and the requirements of §63.8(e). The permittee must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-

minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

- g. The permittee must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control. (9 VAC 5-80-110 and 40 CFR §63.7525(c))

- 31. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Compliance Demonstration** – The permittee shall demonstrate compliance with the emission limits specified in Condition 16 and Table 2 to MACT DDDDD using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. Compliance with the applicable emission limits for hydrogen chloride (HCl), mercury, or total selected metals (TSM) may be demonstrated using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit specified in Condition 16 and Table 2 to MACT DDDDD, otherwise, compliance for HCl, mercury, or TSM must be demonstrated using performance stack testing. (9 VAC 5-80-110 and 40 CFR §63.7505(c))

- 32. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Compliance Demonstration** – If compliance with the emission limits specified in Condition 16 and Table 2 to MACT DDDDD is demonstrated through performance testing and subsequent compliance with operating limits through the use of CPMS, or with a CEMS or COMS, a site-specific monitoring plan must be developed in accordance with the following requirements for the use of any CEMS, COMS, or CPMS:

- a. For each CMS required in 40 CFR §60.7505 (including CEMS, COMS, or CPMS), the permittee shall develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in §63.8(d) and the elements described in (a)(i) through (a)(iii) of this condition.
  - i. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
  - ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
  - iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).
- b. The site-specific monitoring plan shall also address the elements described in (b)(i) through (b)(iii) of this condition:
  - i. Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);
  - ii. Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

iii. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) (as applicable in Table 10 to MACT DDDDD), (e)(1), and (e)(2)(i).

c. The permittee shall conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan.

d. The permittee shall operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(9 VAC 5-80-110 and 40 CFR §63.7505(d))

**33. Fuel Burning Equipment Requirements - (B-3 and B-4) – Testing** – Each boiler (B-3 and B-4) that will demonstrate compliance with the emissions limits in Condition 16 and Table 2 of MACT DDDDD through performance (stack) testing, must conduct all performance tests on an annual basis except as specified in paragraphs a - d and f of this condition. Annual performance tests must be completed no more than 13 months after the previous performance test, except as provided below:

- a. If the performance tests for a given pollutant for at least 2 consecutive years show that the boiler emissions are at or below 75 percent of the emission limit specified in Condition 16 and Table 2 of MACT DDDDD for the pollutant, and if there are no changes in the operation of the individual boiler or air pollution control equipment that could increase emissions, performance tests may be conducted for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If compliance is demonstrated using emission averaging under §63.7522, performance tests must be conducted annually.
- b. If a performance test shows emissions exceeded 75 percent of the emission limit specified in Condition 16 and Table 2 of MACT DDDDD for a pollutant, annual performance tests must be conducted for that pollutant until all performance tests over a consecutive 2-year period are at or below 75 percent of the emission limit.
- c. A 5-year performance tune-up must be conducted on boilers B-3 and B-4 according to §63.7540(a)(10)(i) through (vi). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.
- d. If compliance with the mercury, HCl, or TSM limitation in Condition 16 and Table 2 to MACT DDDDD is based on fuel analysis, a monthly fuel analysis according to §63.7521 shall be conducted for each type of fuel burned. This monthly fuel analysis may be completed any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If a new type of fuel is burned, a fuel analysis must be conducted before burning the new type of fuel in the boiler. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, the fuel analysis frequency may be extended to quarterly for that fuel. If any quarterly analysis exceeds 75 percent of the compliance level or a new type of fuel is burned, monthly fuel analyses must be conducted until 12 months of fuel analyses are again less than 75 percent of the compliance level. If sampling is conducted on one day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply.

- e. The results of performance tests and the associated fuel analyses must be reported within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler have not changed or provide documentation of revised operating limits established according to §63.7530 and Table 7 to MACT DDDDD, as applicable. The reports for all subsequent performance tests must include all applicable information required in §63.7550.
- f. If boiler B-3 or B-4 has not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the subsequent compliance demonstration must be completed no later than 180 days after the re-start of the affected source and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to MACT DDDDD. A subsequent tune-up must be completed by following the procedures described in §63.7540(a)(10)(i) through (vi) and the schedule described in §63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(9 VAC 5-80-110 and 40 CFR §63.7515)

**34. Fuel Burning Equipment Requirements - (B-3 and B-4) – Stack Tests and Procedures –**  
Performance testing shall be conducted according to §63.7(c), (d), (f), and (h). A site-specific monitoring plan shall be developed according to the requirements in §63.7(c). All performance tests shall be conducted under such conditions as the Administrator specifies based on the representative performance of each boiler for the period being tested. Such records as may be necessary to determine the conditions of the performance tests shall be made available to the Administrator upon request.

- a. Each performance test shall be conducted in accordance with the requirements in Table 5 to MACT DDDDD.
- b. Each performance test must be conducted under the specific conditions listed in Tables 5 and 7 to MACT DDDDD. The performance tests must be conducted at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury (and TSM if opting to comply with the TSM alternative standard). These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, the permittee must comply with the operating limit for operating load conditions specified in Condition 18 and Table 4 to MACT DDDDD.
- c. A minimum of three separate test runs must be conducted for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Condition 16 and Table 2 to MACT DDDDD.
- d. If measurement results for any pollutant are reported as below the method detection level, the method detection level must be used as the measured emissions level for that pollutant in calculating compliance.

(9 VAC 5-80-110 and 40 CFR §63.7520)

**35. Fuel Burning Equipment Requirements - (B-3 and B-4) – Fuel Analyses and Procedures –**  
If fuel analysis is used to demonstrate compliance with the HCl, mercury, or TSM limits in Condition 16 and Table 2 to MACT DDDDD, the fuel analyses shall be conducted according to the following procedures and Table 6 to MACT DDDDD, as applicable:

- a. Develop a site-specific fuel analysis plan that includes the following:
    - i. Identification of all fuel types anticipated to be burned in each boiler.
    - ii. For each anticipated fuel type, notification as to whether the permittee a fuel supplier will be conducting the fuel analysis.
    - iii. For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples.
    - iv. For each anticipated fuel type, the analytical methods from Table 6 to MACT DDDDD, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.
    - v. If fuel analysis from a fuel supplier will be used in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to MACT DDDDD.
  - b. Composite fuel samples for each fuel type are to be collected and prepared according to the procedures in 40 CFR §63.7521(c) and (d).
  - c. The pollutant concentrations in the fuels, expressed in lbs/MMBtu, shall be determined according to the procedures in Table 6 to MACT DDDDD.  
(9 VAC 5-80-110 and 40 CFR §63.7521)
36. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Emissions Averaging** – As an alternative to meeting the requirements of §63.7500 for PM (or TSM), HCl, or mercury on a boiler specific basis, the permittee may demonstrate compliance by averaging the emissions of boilers B-3 and B-4, provided that the averaged emissions do not exceed 90% of the applicable emission limit listed in Condition 16 and Table 2 to MACT DDDDD. The average emission rates for boilers B-3 and B-4 must be calculated in accordance with the formulas and procedures in 40 CFR §63.7522.  
(9 VAC 5-80-110 and 40 CFR §63.7522)
37. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Continuous Compliance** – The permittee shall monitor and collect data according to the site specific monitoring plan required by Condition 32, 40 CFR§63.7505(d), and the following:
- a. The monitoring system must be operated and data collected at all required intervals at all times that each boiler is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see 40 CFR §63.8(c)(7)), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan.
  - b. Data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities may not be used in data averages and calculations used to report emissions or operating levels. Results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan must be recorded and made available upon request. All of the data collected during all other periods must be used in assessing compliance and the operation of the control device and associated control system.

- c. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. Data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, are not to be used in calculating monitoring results. Monitoring results are to be calculated using all other monitoring data collected while the process is operating. All periods when the monitoring system is out of control must be reported in the semi-annual report.

(9 VAC 5-80-110 and 40 CFR §63.7535)

**38. Fuel Burning Equipment Requirements - (B-3 and B-4) – Continuous Compliance –** The permittee shall demonstrate continuous compliance with each emission limit specified in Condition 16 and Table 2 of MACT DDDDD, monitor and collect data according to the site specific monitoring plan required by Condition 32, the work practice standards in Condition 22 and Table 3 to MACT DDDDD, and the operating limits in Condition 18 and Table 4 to MACT DDDDD that applies according to the methods specified in Table 8 to MACT DDDDD and the following:

- a. Boiler operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Condition 18 and Table 4 to MACT DDDDD except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.
- b. As specified in Condition 49 and §63.7555(d), records shall be kept regarding the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:
  - i. Equal to or lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, compliance is demonstrated through fuel analysis.
  - ii. Equal to or lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if compliance is demonstrated through performance testing.
- c. If compliance with an applicable HCl emission limit is demonstrated through fuel analysis and a new solid or liquid fuel is proposed, the HCl emission rate must be recalculated using Equation 16 of §63.7530 according to the following:
  - i. The chlorine concentration for any new fuel type must be calculated in units of pounds per million Btu, based on supplier data or source fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to Condition 35 and §63.7521(b).
  - ii. Determine the new mixture of fuels that will have the highest content of chlorine.
  - iii. Recalculate the HCl emission rate from the boiler under these new conditions using Equation 16 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

- d. If compliance with an applicable HCl emission limit is demonstrated through performance testing and a new type of fuel or a new mixture of fuels is proposed, the maximum chlorine input must be recalculated using Equation 7 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of §63.7530 are greater than the maximum chlorine input level established during the previous performance test, a new performance test must be conducted within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. New operating limits based on this performance test must be established according to the procedures in §63.7530(b).
- e. If compliance with an applicable mercury emission limit is demonstrated through fuel analysis, and a new type of fuel is proposed, the mercury emission rate must be recalculated using Equation 17 of §63.7530 according to the procedures specified in below:
  - i. The mercury concentration for any new fuel type must be determined in units of pounds per million Btu, based on supplier data or source fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to Condition 35 and §63.7521(b).
  - ii. Determine the new mixture of fuels that will have the highest content of mercury.
  - iii. Recalculate the mercury emission rate from the boiler under these new conditions using Equation 17 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.
- f. If compliance with an applicable mercury emission limit is demonstrated through performance testing, and a new type or new mixture of fuel is proposed, the maximum mercury input must be recalculated using Equation 8 of §63.7530. If the results of recalculating the maximum mercury input using Equation 8 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, a new performance test must be conducted within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. New operating limits based on this performance test must be established according to the procedures in §63.7530(b).
- g. A tune-up of boilers B-3 and B-4 shall be conducted every 5 years as specified below to demonstrate continuous compliance:
  - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The burner inspection may be performed any time prior to the tune-up or delayed until the next scheduled or unscheduled unit shutdown, but must be inspected at least once every 72 months. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
  - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown);

- iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject;
- v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (1) through (3) below:
  - 1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
  - 2) A description of any corrective actions taken as a part of the tune-up; and
  - 3) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.
- h. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.
- i. If compliance with an applicable TSM emission limit is demonstrated through performance testing, and the use of a new type or mixture of fuel is planned, the maximum TSM input must be recalculated using Equation 9 of §63.7530. If the results of recalculating the maximum TSM input using Equation 9 of §63.7530 are higher than the maximum total selected input level established during the previous performance test, then a new performance test must be conducted within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. New operating limits must also be established based on this performance test according to the procedures in §63.7530(b).
- j. If compliance with an applicable TSM emission limit is demonstrated through fuel analysis for solid or liquid fuels, and the use of a new type or mixture of fuel is planned, TSM emission rate must be recalculated using Equation 18 of §63.7530 according to the procedures specified in paragraphs (i) through (iii) below:
  - i. The TSM concentration must be determined for any new fuel type in units of pounds per million Btu, based on supplier data or the fuel analysis, according to the provisions in the site-specific fuel analysis plan developed according to §63.7521(b).
  - ii. The new mixture of fuels that will have the highest content of TSM must be determined.
  - iii. Recalculate the TSM emission rate from the boiler under these new conditions using Equation 18 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(9 VAC 5-80-110 and 40 CFR §63.7540)

39. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Emissions Averaging Continuous Compliance Demonstration** – The permittee shall demonstrate compliance with MACT DDDDD on a continuous basis by meeting the requirements specified below:

- a. For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in §63.7522(f) and (g).
- b. For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.
- c. For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.

Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a) through (c) of this condition is a deviation.  
(9 VAC 5-80-110 and 40 CFR §63.7541)

40. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Notifications** – All of applicable notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) must be submitted to the Administrator by the dates specified.  
(9 VAC 5-80-110 and 40 CFR §63.7545(a))
41. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Notifications** – The permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.  
(9 VAC 5-80-110 and 40 CFR §63.7545(d))
42. **Fuel Burning Equipment Requirements - (B-3 and B-4) – Notifications** – If a boiler fuel is switched or a physical change is made to the boiler and the fuel switch or physical change resulted in the applicability of a different MACT DDDDD boiler subcategory, notice shall be provided within 30 days of the switch/change. The notification must identify:
  - a. The name of the owner or operator of the affected source, as defined in §63.7490, the location of the source, the boiler(s) that have switched fuels and/or were physically changed, and the date of the notice.
  - b. The currently applicable subcategory under MACT DDDDD.
  - c. The date upon which the fuel switch or physical change occurred.  
(9 VAC 5-80-110 and 40 CFR §63.7545(h))
43. **Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – Reports** – The permittee shall submit each applicable report identified in Table 9 to MACT DDDDD.  
(9 VAC 5-80-110 and 40 CFR §63.7550))
44. **Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – Compliance Reports** – Each compliance report submitted in accordance with Condition 43 must contain the following information:
  - a. Each compliance report pertaining to the 5-year tune-up requirement for boilers B-1 and B-2, as required in Condition 21, must contain the information identified in items (i) through (iv), (xiv), and (xvii) of the table in this condition.

- b. Each compliance report pertaining to the 5-year tune-up requirement for boilers B-3 and B-3, as required in Condition 22, must contain the information identified in items (i) through (iii), (xiv), and (xvii) of the table in this condition.
- c. Each fuel analysis compliance report for boilers B-3 and B-4 must contain the information identified in items (i) through (iii), (vi), (x), (xi), (xiii), (xv), (xvii), and (xviii) of the table in this condition and Condition 45 of this permit.
- d. Each performance testing compliance report for boilers B-3 and B-4 must contain the information identified in (i) through (iii), (vi), (vii), (viii), (ix), (xi), (xiii), (xv), (xvii), (xviii) of the table in this condition and Condition 45 of this permit.
- e. Each CMS compliance report must contain the information identified in paragraphs (i) through (iii), (v), (vi), (xi) through (xiii), and (xv) through (xviii) of the table in this condition, and Condition 46 of this permit.

Compliance Report Required Information (40 CFR §63.7550(c)(5)(i) – (xviii))	
Item No.	Required Information
(i)	Company and Facility name and address.
(ii)	Process unit information, emissions limitations, and operating parameter limitations.
(iii)	Date of report and beginning and ending dates of the reporting period.
(iv)	The total operating time during the reporting period.
(v)	If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.
(vi)	The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
(vii)	If you are conducting performance tests once every 3 years consistent with §63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.
(viii)	A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 16 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 17 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 18 of §63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

Compliance Report Required Information (40 CFR §63.7550(c)(5)(i) – (xviii))	
Item No.	Required Information
(ix)	If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of §63.7530 or the maximum mercury input operating limit using Equation 8 of §63.7530, or the maximum TSM input operating limit using Equation 9 of §63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.
(x)	A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§63.7521(f) and 63.7530(g).
(xi)	If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.
(xii)	If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.
(xiii)	If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with §63.7500(a)(3), including actions taken to correct the malfunction.
(xiv)	Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
(xv)	If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in §63.7545(e)(5)(i).
(xvi)	For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values for CEMS (CO, HCl, SO <sub>2</sub> , and mercury), 10 day rolling average values for CO CEMS when the limit is expressed as a 10 day instead of 30 day rolling average, and the PM CPMS data.
(xvii)	Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
(xviii)	For each instance of startup or shutdown include the information required to be monitored, collected, or recorded according to the requirements of §63.7555(d).

(9 VAC 5-80-110 and 40 CFR §63.7550(c))

**45. Fuel Burning Equipment Requirements - (B-3 and B-4) – Compliance Reports** – For each deviation from an emission limit or operating limit in MACT DDDDD that occurs at an individual boiler where a CMS is not being used to comply with that emission limit or operating limit, or from the work practice standards for periods if startup and shutdown, the compliance report must additionally contain the information listed below:

- a. A description of the deviation and which emission limit, operating limit, or work practice standard that was deviated.
- b. Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

- c. If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.  
(9 VAC 5-80-110 and 40 CFR §63.7550(d))

**46. Fuel Burning Equipment Requirements - (B-3 and B-4) – Compliance Reports** – For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler where a CMS is used to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (a) through (i) below. This includes any deviations from the site-specific monitoring plan as required in §63.7505(d).

- a. The date and time that each deviation started and stopped and description of the nature of the deviation.
- b. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
- c. The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).
- d. The date and time that each deviation started and stopped.
- e. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
- f. A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- g. A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
- h. A brief description of the source for which there was a deviation.
- i. A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(9 VAC 5-80-110 and 40 CFR §63.7550(e))

**47. Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – Reports** – The permittee shall submit each report identified in Conditions 43 through 46 according to the following procedures:

- a. Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, the permittee must submit the results of the performance tests, including any fuel analyses, following the procedure specified in either paragraph (i) or (ii) below:
  - i. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), the results of the performance test must be submitted to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>).) Performance test data must be submitted in a file format

- generated through use of the EPA's ERT or an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If some of the performance test information being submitted is considered to be confidential business information (CBI), a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site must be submitted, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
- ii. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the results of the performance test must be submitted to the Administrator at the appropriate address listed in §63.13.
- b. Within 60 days after the date of completing each CEMS performance evaluation (as defined in 63.2), the results of the performance evaluation must be submitted following the procedure specified in either paragraph (i) or (ii) below:
- i. For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the results of the performance evaluation must be submitted to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If some of the performance evaluation information being transmitted is claimed to be CBI, a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site must be submitted, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
  - ii. For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT Web site at the time of the evaluation, the results of the performance evaluation must be submitted to the Administrator at the appropriate address listed in §63.13.
- c. All reports required by Table 9 of MACT DDDDD must be submitted electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The appropriate electronic report in CEDRI for MACT DDDDD must be used unless an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>) is available for use. If the reporting form specific to MACT DDDDD is not available in CEDRI at the time that the report is due, the report must be sent to the Administrator at the appropriate address listed in §63.13. The

permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

(9 VAC 5-80-110 and 40 CFR §63.7550(h))

48. **Fuel Burning Equipment Requirements - (B-1 and B-2) –Recordkeeping** – The permittee shall keep fuel use records for boilers B-1 and B-2 for each day that the respective boiler is operated.

(9 VAC 5-80-110, Condition 4 of the SOP issued 1/18/2017, and 40 CFR §63.7525(k))

49. **Fuel Burning Equipment Requirements – (B-1, B-2, B-3, and B-4) – Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

- a. Monthly quantities of wood and coal fuels combusted in the 21.776 MMBtu/hr Combustion Engineering boiler (B-1);
- b. Monthly quantities of wood and coal fuels combusted in the 19.16 MMBtu/hr Combustion Engineering boiler (B-2);
- c. The results of all fuel heat (Btu) content analyses conducted on the wood and coal fuels consumed in boilers B-1 and B-2;
- d. The calculated total monthly and annual heat energy (Btu's) from the fuel combusted in boilers (B-1 and B-2);
- e. Monthly and annual combustion of wood and coal in the 27 MMBtu/hr Keeler CP-Type boiler (B-3);
- f. Monthly and annual combustion of wood and coal in the 28 MMBtu/hr English SF-Type boiler (B-4);
- g. Coal fuel supplier certifications for all coal shipments purchased, indicating sulfur and heat (Btu) content per shipment; and
- h. The pollutant specific emission factors (F factors) and equations used to calculate actual emission rates from each of the boilers.

Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 B, 40 CFR §63.7555(d)(1), Condition 4 of the SOP issued 1/18/2017, and Conditions 15 and 23 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

50. **Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – Recordkeeping** – The permittee shall keep records of the following:

- a. A copy of each notification and report submitted to comply with this MACT DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report submitted, according to the requirements in §63.10(b)(2)(xiv).

- b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).
- c. A copy of the federally enforceable permit that limits the annual capacity factors for boilers B-1 and B-2 to less than or equal to 10 percent and fuel use records for the days that these boilers were operating.

(9 VAC 5-80-110 and 40 CFR §63.7555(a))

**51. Fuel Burning Equipment Requirements - (B-3 and B-4) – Recordkeeping** – For each CEMS, COMS, and continuous monitoring system, the permittee shall keep records of the following:

- a. Records described in §63.10(b)(2)(vii) through (xi).
- b. Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).
- c. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
- d. Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).
- e. Records of the date and time that each deviation started and stopped.

(9 VAC 5-80-110 and 40 CFR §63.7555(b))

**52. Fuel Burning Equipment Requirements - (B-3 and B-4) – Recordkeeping** – The permittee shall maintain records of all monitoring data (such as opacity, pressure drop, pH, and operating load) and calculated averages used to demonstrate continuous compliance with each applicable emission limit and operating limit in MACT DDDDD.

(9 VAC 5-80-110 and 40 CFR §63.7555(c))

**53. Fuel Burning Equipment Requirements - (B-3 and B-4) – Recordkeeping** – The permittee shall maintain records of the following:

- a. HCl emissions:
  - i. Sources that demonstrate continuous compliance through performance testing must maintain a copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit.
  - ii. Sources that demonstrate compliance through fuel analysis must maintain a copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The results from one fuel analysis may be for multiple boilers provided they are all burning the same fuel type. However, chlorine fuel input, or HCl emission rate, for each boiler must be calculated.
- b. Mercury emissions:
  - i. Sources that demonstrate continuous compliance through performance testing must maintain a copy of all calculations and supporting documentation of maximum mercury

fuel input, using Equation 8 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit.

- ii. Sources demonstrating continuous compliance through fuel analysis must maintain a copy of all calculations and supporting documentation of mercury emission rates, using Equation 17 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The results from one fuel analysis may be used for multiple boilers provided they are all burning the same fuel type. However, mercury fuel input, or mercury emission rates, for each boiler must be calculated.
- c. TSM emissions:
- i. Sources that demonstrate continuous compliance through performance testing must maintain a copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit.
  - ii. Sources demonstrating continuous compliance through fuel analysis must maintain a copy of all calculations and supporting documentation of TSM emission rates, using Equation 18 of §63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. The results from one fuel analysis may be used for multiple boilers provided they are all burning the same fuel type. However, TSM fuel input, or TSM emission rates, for each boiler must be calculated.
- d. If, consistent with §63.7515(b), stack tests are performed less frequently than annually, records documenting that the emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit must be maintained. In addition, records documenting that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year, must be maintained.
- e. Records of the occurrence and duration of each malfunction of the boiler or of the associated air pollution control and monitoring equipment.
- f. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- g. Records of the calendar date, time, occurrence and duration of each startup and shutdown.
- h. Records of the type(s) and amount(s) of fuels used during each startup and shutdown.
- i. For each startup period, for units selecting paragraph (2) of the definition of "startup" in §63.7575:
- i. Maintain records of the time that clean fuel combustion begins; the time when the feeding of fuels that are not clean fuels begins; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged.

- ii. Maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (e.g., CEMS, PM CPMS, COMS) collected during each startup period to confirm that the control devices are engaged.
  - j. If paragraph (2) of the definition of "startup" in §63.7575 is being used and the permittee is unable to safely engage and operate the PM control(s) within 1 hour of first firing of non-clean fuels, the paragraph (1) of definition of "startup" in §63.7575 may be used or submit a request to the delegated permitting authority for a variance with the PM controls requirement, as described below.
    - i. The request shall provide evidence of a documented manufacturer-identified safety issue.
    - ii. The request shall provide information to document that the PM control device is adequately designed and sized to meet the applicable PM emission limit.
    - iii. In addition, the request shall contain documentation that:
      - 1) The unit is using clean fuels to the maximum extent possible to bring the unit and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel;
      - 2) The unit has explicitly followed the manufacturer's procedures to alleviate or prevent the identified safety issue; and
      - 3) Identifies with specificity the details of the manufacturer's statement of concern.
    - iv. The permittee must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements.
- (9 VAC 5-80-110 and 40 CFR §63.7555(d))

**54. Fuel Burning Equipment Requirements - (B-3 and B-4) –Recordkeeping –** The permittee shall maintain records of the following:

- a. If electing to average emissions consistent with §63.7522, a copy of the emission averaging implementation plan required in §63.7522(g), all calculations required under §63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with §63.7541 must be kept.
  - b. If electing to use efficiency credits from energy conservation measures to demonstrate compliance according to §63.7533, a copy of the Implementation Plan required in §63.7533(d) and copies of all data and calculations used to establish credits according to §63.7533(b), (c), and (f) must be kept.
- (9 VAC 5-80-110 and 40 CFR §63.7555(e) and (f))

**55. Fuel Burning Equipment Requirements - (B-1, B-2, B-3 and B-4) – Recordkeeping –** The permittee shall maintain all records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept on site, or it must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). Such records may be kept off-site for the remaining 3 years.

(9 VAC 5-80-110 and 40 CFR §63.7560)

56. **Fuel Burning Equipment Requirements – (B-1 and B-2) – Recordkeeping** - A record of each visible emissions observation (as required in Condition 26) shall be maintained and shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.  
(9 VAC 5-80-110 K)

**IV. Dry Kiln Requirements – (emission unit ID#s DK-1 through DK-11)**

57. **Dry Kiln Requirements - (DK-1 through DK-11) – Applicable Requirements** – Except as specified in this permit, the facility is to be operated in accordance with 40 CFR 63 Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. Subpart DDDD is applicable to the lumber dry kilns and veneer gluing equipment. There are no applicable requirements other than the previously completed initial notification requirements in 40 CFR §63.9(b).  
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110, and 40 CFR 63 Subpart DDDD)
58. **Dry Kiln Requirements – (DK-5 through DK-11)- Limitations** - The dry kilns DK-5, DK-6, DK-7, DK-8, DK-9, DK-10, and DK-11, shall process no more than a combined total of 28,677,000 board feet of lumber per year, calculated as the sum of each consecutive twelve (12) month period. In addition, the total quantities of softwood and hardwood dried in these kilns shall be maintained such that the following equation is valid:

$$(3.40 \times S) + (0.34 \times H) \leq 65,060$$

where: S = total softwood (pine) dried, expressed in thousands of board-feet per year  
H = total hardwood (oak, poplar, etc.) dried, expressed in thousands of board-feet per year

The permittee shall maintain records of the total board-feet of hardwood and softwood dried in kilns DK-5, DK-6, DK-7, DK-8, DK-9, DK-10, and DK-11 on a monthly basis. These records shall be available on site for inspection by Department personnel and shall be kept on file for the most current five-year period.

(9 VAC 5-80-110 and Condition 9 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

59. **Dry Kiln Requirements – (DK-5 through DK-11)- Limitations** - Emissions from the operation of the dry kilns DK-5, DK-6, DK-7, DK-8, DK-9, DK 10, and DK-11, as a combined total, shall not exceed the limits specified below:

Volatile Organic Compounds (VOC)	11.13 lbs/hr	32.53 tons/yr
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Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 17 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

60. **Dry Kiln Requirements – (DK-5 through DK-11) – Monitoring and Recordkeeping** - The permittee shall maintain records of emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to: the combined total board-feet of green lumber processed in dry kilns DK-5, DK-6,

DK-7, DK-8, DK-9, DK-10, and DK-11 (segregated as to hardwood or softwood), calculated monthly as the sum of each consecutive twelve (12) month period; and the pollutant specific emission factors (F factors) and equations used to calculate actual emission rates from the dry kilns. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110 B, and Condition 23 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

61. **Dry Kiln Requirements – (DK-5 through DK-11) – Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

**V. Woodworking Equipment Requirements (emission unit ID# WW-1)**

62. **Woodworking Equipment Requirements – (WW-1) – Limitations** - Particulate emissions from the woodworking operations at the facility shall be controlled by fabric filters, or equivalent. Each fabric filter shall be provided with adequate access for inspection. Each fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed in an accessible location and shall be maintained by the permittee such that each is in proper working order at all times.  
(9 VAC 5-50-260, 9 VAC 5-80-110 B, and Condition 5 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

63. **Woodworking Equipment Requirements – (WW-1) – Limitations** - All subsequent transfer of the collected material from the woodworking equipment at the facility shall be controlled by a completely enclosed transfer system.  
(9 VAC 5-80-110 and Condition 6 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

64. **Woodworking Equipment Requirements – (WW-1) – Limitations** - Fugitive particulate emissions from the collection and transferring of collected wood particles shall be controlled by:
- a. Rotary airlock from the collector to an enclosed bin; and
  - b. Complete enclosure.
- (9 VAC 5-80-110 and Condition 7 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

65. **Woodworking Equipment Requirements – (WW-1) – Limitations** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided in the exhaust of each fabric filter in the wood dust collection system.  
(9 VAC 5-50-30 F, 9 VAC 5-80-110, and Condition 8 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

66. **Woodworking Equipment Requirements – (WW-1) – Limitations** - The woodworking operations at the facility shall not process more than 57,027,600 board-feet of lumber per year, calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 10 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
67. **Woodworking Equipment Requirements – (WW-1) – Limitations** - Emissions from the operation of the woodworking equipment at the facility, as exhausted from each fabric filter in the dust collection system, shall not exceed the following limits:
- |                    |                  |               |
|--------------------|------------------|---------------|
| Particulate Matter | 0.01 grains/dscf | 17.61 tons/yr |
| PM-10 (filterable) | 0.01 grains/dscf | 8.80 tons/yr  |
- (9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 16 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
68. **Woodworking Equipment Requirements – (WW-1) – Limitations** - Visible emissions from each fabric filter exhaust in the wood dust collection system shall not exceed five (5) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-50-80, 9 VAC 5-50-260, 5-80-110, and Condition 20 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))
69. **Woodworking Equipment Requirements – (WW-1) – Monitoring** - The permittee shall perform visible emission observations on each of the bagfilters controlling emissions from the woodworking operations that exhaust directly to the atmosphere (this condition does not apply to units that exhaust into the plant). The visible emissions observations shall be conducted at least once each week during periods of normal facility operation for a sufficient time period to determine the presence of any visible emissions. If no visible emissions are observed, no action shall be required. However, if the visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9 for a period of not less than 6-minutes. If the average opacity exceeds 5%, modifications and/or repairs shall be performed to correct the problem and the corrective measures shall be recorded. If such corrective action fails to remedy the opacity problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be performed for a period of at least 18 minutes to determine compliance with the opacity limit specified in Condition V.A.7 of this permit. The visible emissions observer shall be Method 9 certified.  
(9 VAC 5-80-110 K)
70. **Woodworking Equipment Requirements – (WW-1) – Recordkeeping** - A record of each visible emissions observation shall be maintained and shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.  
(9 VAC 5-80-110 K)
71. **Woodworking Equipment Requirements – (WW-1) – Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with

the Director, Southwest Regional Office. These records shall include, but are not limited to, the results of the opacity checks and any VEE's (if any) conducted on the woodworking bagfilters. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 9 VAC 5-80-110)

72. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - The permittee shall monitor, operate, calibrate, and maintain the baghouses (BF 1 through BF 9) controlling the emissions from the woodworking equipment (WW 1) as follows:

Monitoring, Frequency, Records	Performance Criteria	Indicator Range; Averaging Period
Conduct weekly visible emission observations per Condition 69.	Check for presence of visible emissions	Instantaneous observation of visible emissions
Conduct semi-annual internal inspection and maintenance on each baghouse.	Inspections will be conducted by a qualified person with at least one year of experience in maintenance of mechanical equipment.	Air flow restrictions and/or holes in filter bags affecting proper operation of the baghouse.

The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR §64.7 through 40 CFR §64.9.  
(9 VAC 5-80-490 E and 40 CFR §64.6 (c))

73. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - Except for, as applicable, associated repairs and required quality assurance or control activities, the permittee shall collect data at all required intervals when the baghouses are operating. Data recorded during repairs and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.  
(9 VAC 5-80-490 E and 40 CFR § 64.7 (b))

74. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - Upon detecting an excursion or exceedance, the permittee shall restore operation of the affected baghouse to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.  
(9 VAC 5-80-490 E and 40 CFR §64.7 (d)(1))

75. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.  
(9 VAC 5-80-490 E and 40 CFR §64.7(d)(2))
76. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director, Southwest Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.  
(9 VAC 5-80-490 E and 40 CFR §64.7(e))
77. **Woodworking Equipment Requirements – (WW-1) – Compliance Assurance Monitoring (CAM)** - If any baghouse experiences more than six excursions during a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR §64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
- a. Improved preventative maintenance practices;
  - b. Process operation changes;
  - c. Appropriate improvements to control methods;
  - d. Other steps appropriate to correct control performance; and
  - e. More frequent or improved monitoring.
- (9 VAC 5-80-490 E and 40 CFR §64.8(a) and (b))
78. **Woodworking Equipment Requirements – (WW-1) – Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

#### **VI. Veneer Gluing Operation Requirements (Emission Unit I.D. No. G-1)**

79. **Veneer Gluing Operation Requirements – (G-1) – Limitations** - Particulate matter (PM) emissions from the veneer glue spray booth (G 1) shall not exceed the hourly emission rate as calculated using the following equation:

$$E = 4.10 \times P^{0.67}$$

Where: E = PM emission rate, in lbs/hr  
P = Process weight rate in tons/hr

The tons of furniture processed on a monthly basis shall be divided by the corresponding monthly hours of furniture line operation to obtain an average hourly process weight rate (P).  
(9 VAC 5-40-260 and 5-80-110)

80. **Veneer Gluing Operation Requirements – (G-1) – Limitations** - Visible emissions from the veneer glue spray booth exhaust (GS 1) shall not exceed 20 percent opacity, except during one six minute period in any one hour in which visible emissions shall not exceed 60 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-40-80 and 9 VAC 5-80-110)

81. **Veneer Gluing Operations - (G-1) – Emission Standards – Volatile Hazardous Air Pollutant (VHAP) emissions** from the facility shall not exceed the following limits:

- a. For contact adhesive operations compliant contact adhesives shall be used based on the following criteria:
  - i. For aerosol adhesives, as well as hot melt, PVA, and urea-formaldehyde adhesives, and for contact adhesives applied to nonporous substrates there is no limit on the VHAP content of these adhesives;
  - ii. For foam adhesives used in products that meet flammability requirements the VHAP content can be no more than 1.8 lb VHAP/lb solids, as applied;
  - iii. For all other contact adhesives the VHAP content can be no more than 1.0 lb VHAP/lb solids, as applied.
- b. Limit formaldehyde emissions by complying with either of the following:
  - i. Limit total formaldehyde use in contact adhesives to no more than 400 pounds per rolling 12-month period.
  - ii. Use contact adhesives only if they contain no more than 1.0 percent formaldehyde by weight, in any wood furniture manufacturing operations.

(9 VAC 5-80-110 and 40 CFR §63.802)

82. **Veneer Gluing Operations - Continuous Compliance** – Continuous compliance with the VHAP emissions limits shall be determined as follows (see Conditions 87 and 88 for content and timing of report submissions and signature requirements):

- a. For contact adhesive operations when compliant adhesives are being used to show initial compliance the permittee shall submit a compliance certification with the semiannual report. The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a noncompliant contact or foam adhesive is used is a single violation of the standard.
- b. For work practice standards the permittee shall submit a compliance certification with the semiannual report. The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that the permittee is required to implement the provisions of the

plan, each failure to implement an obligation under the plan during any particular day is a violation and the Administrator may require the permittee to modify the plan (see Condition 85.a).

(9 VAC 5-80-110 and 40 CFR §63.804.(g) & 40 CFR §63.8)

83. **Veneer Gluing Operations - (G-1) – Submittals** – All submittals to the Administrator shall be sent to the Director, Southwest Regional Office and to EPA Region III at the following address:

EPA Region III  
Director, Air, Radiation and Toxics Division  
1650 Arch Street  
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 and 40 CFR §63.13)

84. **Veneer Gluing Operations - (G-1) – Operation and Maintenance** – The permittee shall meet the following operation and maintenance requirements:

- a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.
- b. Malfunctions shall be corrected as soon as practicable after their occurrence.
- c. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.
- d. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(9 VAC 5-80-110 and 40 CFR §63.6(e))

85. **Veneer Gluing Operations - (G-1) – Work Practice Standards** – The permittee shall develop and implement the following work practice standards:

- a. **Work practice implementation plan** - The permittee shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for the gluing operations and addresses each of the work practice standards presented in paragraphs b through f of this condition. The plan shall be developed no more than 60 days after the compliance date. The written work practice implementation plan shall be available for inspection by the Administrator upon request. If the Administrator determines that the work practice implementation plan does not adequately address each of the topics specified in §63.803 of Subpart JJ or that the plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator may require the permittee to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.
- b. **Operator training course** - The permittee shall train all new and existing personnel, including contract personnel, who are involved in gluing and cleaning operations, use of manufacturing equipment in these operations, or implementation of the requirements of

Subpart JJ. All new personnel shall be trained upon hiring. All existing personnel shall be trained within six months of the compliance date. All personnel shall be given refresher training annually. The permittee shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

- i. A list of all current personnel by name and job description that are required to be trained;
  - ii. An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;
  - iii. Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
  - iv. A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.
- c. Inspection and maintenance plan - The permittee shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:
- i. A minimum visual inspection frequency of once per month for all equipment used to transfer or apply adhesives or organic HAP solvents;
  - ii. An inspection schedule;
  - iii. Methods for documenting the date and results of each inspection and any repairs that were made;
  - iv. The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:
    - 1) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and
    - 2) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.
- d. Cleaning solvent accounting system - The permittee shall develop an organic HAP solvent accounting form to record:
- i. The quantity and type of organic HAP solvent used each month for cleaning, as defined in §63.801 of Subpart JJ;
  - ii. The quantity of spent organic HAP solvent generated from each cleaning operation each month, and whether it is recycled onsite or disposed offsite.
- e. Chemical composition of cleaning - The permittee shall not use cleaning solvents that contain any of the pollutants listed in Table 4 of Subpart JJ, in concentrations subject to MSDS reporting as required by OSHA.
- f. Storage requirements - The permittee shall use normally closed containers for storing gluing, and cleaning materials.
- (9 VAC 5-80-110 and 40 CFR §63.803(a)-(l))

**86. Veneer Gluing Operations - (G-1) – Recordkeeping** – The permittee shall maintain records of the following:

- a. For emission limit purposes the permittee shall maintain the following:
  - i. A certified product data sheet for each contact adhesive subject to the emission limits in Subpart JJ; and
  - ii. The VHAP content, in lb VHAP/lb solids, as applied, of each contact adhesive subject to the emission limits in Subpart JJ.
- b. The permittee shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:
  - i. Records demonstrating that the operator training program required by Condition 85.b is in place;
  - ii. Records collected in accordance with the inspection and maintenance plan required by Condition 85.c;
  - iii. Records associated with the cleaning solvent accounting system required by Condition 85.d; and
  - iv. Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.
- c. The permittee shall maintain records of the compliance certifications submitted for each semiannual period following the compliance date.
- d. The permittee shall maintain records of all other information submitted with the compliance status report and the semiannual reports.
- e. The permittee shall maintain files of all information (including all reports and notifications) required, recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(9 VAC 5-80-110 and 40 CFR §63.806 & §63.10(b)(1), (b)(2), & (c))

**87. Veneer Gluing Operations - (G-1) – Notification of Compliance** – Each time a notification of compliance status is required, the permittee shall submit to the Director, Southwest Regional Office and/or the Administrator, a notification of compliance status, signed by a responsible official of the company that owns or operates the facility who shall certify its accuracy, attesting to whether the source has complied with Subpart JJ. The notification shall list:

- a. The methods that were used to determine compliance;
- b. The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
- c. The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

- d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified;
  - e. An analysis demonstrating whether the facility is a major source or an area source (using the emissions data generated for this notification);
  - f. A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
  - g. A statement by the permittee as to whether the facility has complied with Subpart JJ as expressed in this permit.
- (9 VAC 5-80-110 and 40 CFR §63.9(h))

**88. Veneer Gluing Operations - (G-1) – Reporting – Reporting not otherwise required by this permit shall consist of the following:**

- a. The permittee when demonstrating initial compliance (when not using a control device) shall submit the compliance status report required by §63.9(h) and Condition 87 no later than 60 days after the compliance date. The report shall include the information required by Condition 82.
- b. The permittee when demonstrating continuous compliance (when not using a control device) shall submit a report covering the previous 6 months of wood furniture manufacturing operations:
  - i. The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.
  - ii. Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.
  - iii. The semiannual reports shall include the information required by Condition 82, a statement of whether the facility was in compliance or noncompliance, and, if the facility was in noncompliance, the measures taken to bring the facility into compliance.
  - iv. The frequency of the reports required by paragraph b of this condition shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(9 VAC 5-80-110 and 40 CFR §63.807 & §63.10(d)-(e))

- 89. Veneer Gluing Operation Requirements – (G-1) – Monitoring and Recordkeeping -** The permittee shall perform visible emissions observations on the veneer glue spray booth exhaust (GS-1) at least once each week during normal facility operation. Each visible emissions observation shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions do not appear to exceed ten percent (10%) opacity, no action shall be required. However, if the observed visible emissions appear to exceed ten percent opacity, a visible emission evaluation (VEE) shall be conducted using 40 CFR Part 60, Appendix A, Method 9 for a period of not less than 6 minutes. If the average opacity exceeds 20%, modifications and/or repairs shall be performed to correct the problem and the corrective measures shall be recorded. If such corrective action fails to remedy the opacity problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be performed for a

period of at least 18 minutes to determine compliance with the opacity limits specified in Condition 80 of this permit. The visible emissions observer shall be Method 9 certified.  
(9 VAC 5-80-110)

90. **Veneer Gluing Operation Requirements – (G-1) – Monitoring and Recordkeeping** - A record of each visible emissions observation shall be maintained and shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.  
(9 VAC 5-80-110 K)
91. **Veneer Gluing Operation Requirements – (G-1) – Monitoring and Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
- a. The results of the opacity checks and any VEE's conducted on the veneer glue spray booth (G-1);
  - b. A material safety data sheet (MSDS), or certified product data sheet, for each adhesive applied in the veneer glue spray booth (G-1);
  - c. The pollutant specific emission factors (F factors) and equations used to calculate actual emission rates from the veneer glue spray booth (G-1);
  - d. The monthly consumption of each adhesive in the veneer glue spray booth (G-1);
  - e. The total weight of furniture processed through the veneer glue spray booth (G-1) during each monthly period; and
  - f. The total monthly hours of operation of the furniture production line.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 9 VAC 5-80-110)

92. **Veneer Gluing Operation Requirements – (G-1) – Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

## **VII. Finishing Operations Requirements – (emission unit ID SF-1)**

93. **Finishing Operations Requirements – (SF1) – Limitations** - Particulate matter (PM) emissions from each of the finish coating spray booths (SF 1) shall not exceed its corresponding hourly emission rate as calculated using the following equation:

$$E = 4.10 \times P^{0.67}$$

Where: E = PM emission rate, in lbs/hr  
P = Process weight rate in tons/hr

The tons of furniture processed on a monthly basis shall be divided by the corresponding monthly hours of furniture line operation to obtain an average hourly process weight rate (P). (9 VAC 5-40-260 and 5-80-110)

94. **Finishing Operations Requirements – (SF-1) – Limitations** - Visible emissions from the exhausts of each finish coating spray booth (SF-1) shall not exceed 20 percent opacity, except during one six minute period in any one hour in which visible emissions shall not exceed 60 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). (9 VAC 5-40-80 and 9 VAC 5-80-110)
95. **Finishing Operations Requirements –(SF-1) – Applicable Requirements** – Except as specified in this permit, the facility is to be operated in compliance with Federal requirements under 40 CFR Part 63, Subpart JJ and 40 CFR Part 63, Subpart A, as identified in Table 1 for Subpart JJ. (9 VAC 5-80-110, 40 CFR §63.800, and 40 CFR 63 Subpart A)
96. **Finishing Operations Requirements – (SF-1) – Emission Standards** – Volatile Hazardous Air Pollutant (VHAP) emissions from the facility shall not exceed the following limits:
- a. For finishing operations use any of the following methods;
    - i. Achieve a weighted average VHAP content across all coatings of 1.0 lb VHAP/lb solids, as applied;
    - ii. Use compliant finishing materials that meet the following specifications:
      - 1) Each sealer and topcoat has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied;
      - 2) Each stain has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied;
      - 3) Each thinner contains no more than 10.0 percent VHAP by weight except where excluded by (5) of this sub-section;
      - 4) Each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied;
      - 5) Each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 1.0 lb VHAP/lb solids and a thinner containing no more than 3.0 percent VHAP by weight;
    - iii. Use any combination of averaging, compliant coatings, and control device such that no greater than 1.0 lb of VHAP being emitted per lb of solids used;
  - b. For cleaning operations strippable spray booth coatings shall be used that contain no more than 0.8 lb VOC/lb solids, as applied;
  - c. Limit formaldehyde emissions by complying with either of the following no later than November 21, 2011:
    - i. Limit total formaldehyde use in coatings to no more than 400 pounds per rolling 12-month period.
    - ii. Use coatings only if they contain no more than 1.0 percent formaldehyde by weight, in any wood furniture manufacturing operations.
- (9 VAC 5-80-110 and 40 CFR §63.802)

**97. Finishing Operations Requirements – (SF-1) – Continuous Compliance – Continuous compliance with the VHAP emissions limits shall be determined as follows (see Conditions 102 and 103 for content and timing of report submissions and signature requirements):**

- a. For finishing operations when averaging is being used to show continuous compliance, the permittee shall submit the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report. The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater than 1.0. The facility is in violation of the standard if E is greater than 1.0 for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

$$E = (M_{c1}C_{c1} + M_{c2}C_{c2} + \dots + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + \dots + S_nW_n) / (M_{c1} + M_{c2} + \dots + M_{cn}) \quad \text{(Equation 1)}$$

Where:

- E = the emission limit achieved by an emission point or a set of emission points, in lb VHAP/lb solids.  
M<sub>c</sub> = the mass of solids in a finishing material or coating (c) used monthly, including exempt finishing materials and coatings, lb solids/month.  
C<sub>c</sub> = the VHAP content of a finishing material or coating (c), in pounds of VHAP per pound of coating solids.  
S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials or coatings.  
W = the amount of solvent, in pounds, added to finishing materials and coatings during the monthly averaging period.

The emission limit (E in lb VHAP / lb solids) equals the sum, for all finishing materials and coatings, of the mass of solids in each material used within that month (M<sub>c</sub> in lb solids / month) multiplied by the VHAP content in each material (C<sub>c</sub> in lb VHAP / lb solids) plus the sum, for all solvents, of the mass of solvent used monthly (W in lb solvent / month) multiplied by the weight fraction of VHAP in the solvent (S in lb VHAP / lb solvent), with this total being divided by the sum, for all finishing materials and coatings, of the mass of solids in each finishing material and coating used within that month (M<sub>c</sub> in lb solids / month).

- b. For finishing operations when compliant coatings are being used to show continuous compliance, the permittee shall use compliant coatings and thinners, maintain records that demonstrate the finishing materials and thinners are compliant, and submit a compliance certification with the semiannual report which states that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as stated in Condition 96, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. The facility is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.
- c. For finishing operations when compliant coatings are being used to show continuous compliance and the coatings are being applied using continuous coaters the permittee shall demonstrate continuous compliance by either of the following:
- i. Use compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, use compliant thinners, and submit a compliance certification with the semiannual report which states that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. The facility is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

- ii. Use compliant coatings, as determined by the VHAP content of the coating in the reservoir, use compliant thinners, maintain a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintain records of solvent additions, and submit a compliance certification with the semiannual report which states that compliant coatings, as determined by the VHAP content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period. The facility is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit, as determined using EPA Method 311, or the viscosity of the coating in the reservoir is less than the viscosity of the initial coating.
- d. For strippable spray booth coatings the permittee shall submit a compliance certification with the semiannual report. The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.
- e. For work practice standards the permittee shall submit a compliance certification with the semiannual report. The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that the permittee is required to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation and the Administrator may require the permittee to modify the plan (see Condition 100.a).

(9 VAC 5-80-110 and 40 CFR §63.804.(g) & 40 CFR §63.8)

98. **Finishing Operations Requirements - (SF-1) – Submittals** – All submittals to the Administrator shall be sent to the Director, Southwest Regional Office and to EPA Region III at the following address:

EPA Region III  
Director, Air, Radiation and Toxics Division  
1650 Arch Street  
Philadelphia, PA 19103-2029

Copies of all submittals should also be sent to the Southwest Regional Office.

(9 VAC 5-80-110 and 40 CFR §63.13)

99. **Finishing Operations Requirements - (SF-1) – Operation and Maintenance** – The permittee shall meet the following operation and maintenance requirements:

- a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

- b. Malfunctions shall be corrected as soon as practicable after their occurrence.
- c. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.
- d. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(9 VAC 5-80-110 and 40 CFR §63.6(e))

**100. Finishing Operations Requirements - (SF-1) – Work Practice Standards – The permittee shall develop and implement the following work practice standards:**

- a. **Work practice implementation plan** - The permittee shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for the finishing and gluing operations and addresses each of the work practice standards presented in paragraphs b through l of this condition. The plan shall be developed no more than 60 days after the compliance date. The written work practice implementation plan shall be available for inspection by the Administrator upon request. If the Administrator determines that the work practice implementation plan does not adequately address each of the topics specified in §63.803 of Subpart JJ or that the plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator may require the permittee to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.
- b. **Operator training course** - The permittee shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment in these operations, or implementation of the requirements of Subpart JJ. All new personnel shall be trained upon hiring. All existing personnel shall be trained within six months of the compliance date. All personnel shall be given refresher training annually. The permittee shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:
  - i. A list of all current personnel by name and job description that are required to be trained;
  - ii. An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;
  - iii. Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
  - iv. A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.
- c. **Inspection and maintenance plan** - The permittee shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:
  - i. A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, or organic HAP solvents;

- ii. An inspection schedule;
- iii. Methods for documenting the date and results of each inspection and any repairs that were made;
- iv. The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:
  - 1) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and
  - 2) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.
- d. Cleaning and washoff solvent accounting system - The permittee shall develop an organic HAP solvent accounting form to record:
  - i. The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in §63.801 of Subpart JJ;
  - ii. The number of pieces washed off, and the reason for the washoff; and
  - iii. The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.
- e. Chemical composition of cleaning and washoff solvents - The permittee shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 of Subpart JJ, in concentrations subject to MSDS reporting as required by OSHA.
- f. Spray booth cleaning - The permittee shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the permittee shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.
- g. Storage requirements - The permittee shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.
- h. Each owner or operator of an affected source shall not use conventional air spray guns except when all emissions from the finishing application station are routed to a functioning control device.
- i. Line cleaning - The permittee shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.
- j. Gun cleaning - The permittee shall collect all organic HAP solvent used to clean spray guns into a normally closed container.
- k. Washoff operations - The permittee shall control emissions from washoff operations by:
  - i. Using normally closed tanks for washoff; and
  - ii. Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.
- l. Formulation assessment plan for finishing operations - The permittee shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

- i. Identifies VHAP from the list presented in Table 5 of Subpart JJ that are being used in finishing operations;
- ii. Establishes a baseline level of usage for each VHAP identified. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified, except for formaldehyde and styrene, which shall be determined as specified by §63.803 (l)(2). For VHAP's that do not have a baseline, one will be established according to below paragraph iv of this condition.
- iii. Tracks the annual usage of each VHAP identified that is present in amounts subject to MSDS reporting as required by OSHA.
- iv. If the annual usage of the VHAP identified exceeds its baseline level, then the permittee of the facility shall provide a written notification to the Director, Southwest Regional Office and/or the Administrator that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:
  - 1) The exceedance is no more than 15.0 percent above the baseline level;
  - 2) Usage of the VHAP is below the de minimis level presented in Table 5 for that VHAP;
  - 3) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or
  - 4) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 lb VOC/lb solids, as applied.
- v. If none of the explanations listed the above paragraph iv of this condition are the reason for the increase, the permittee shall confer with the Director, Southwest Regional Office and/or the Administrator to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the Director, Southwest Regional Office and/or the Administrator and the owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.
- vi. If the facility uses a VHAP of potential concern listed in Table 6 of Subpart JJ for which a baseline level has not been previously established, then the baseline level shall be established as the de minimis level provided in that same table. The permittee shall track the annual usage of each VHAP of potential concern identified that is present in amounts subject to MSDS reporting as required by OSHA. If usage of the VHAP of potential concern exceeds the de minimis level listed in Table 6 of Subpart JJ for that chemical, then the permittee shall provide an explanation to the Director, Southwest Regional Office and/or the Administrator that documents the reason for exceedance of the de minimis level. If the explanation is not one of those listed in the above paragraph

iv of this condition, the affected source shall follow the procedures established in the above paragraph v of this condition.  
(9 VAC 5-80-110 and 40 CFR §63.803(a)-(1))

**101. Finishing Operations Requirements - (SF-1) – Recordkeeping – The permittee shall maintain records of the following:**

- a. For emission limit purposes the permittee shall maintain the following:
  - i. A certified product data sheet for each finishing material, thinner, and strippable spray booth coating subject to the emission limits in Subpart JJ,
  - ii. The VHAP content, in lb VHAP/lb solids, as applied, of each finishing material subject to the emission limits in Subpart JJ; and
  - iii. The VOC content, in lb VOC/lb solids, as applied, of each strippable booth coating subject to the emission limits in Subpart JJ.
- b. Following the averaging method the permittee shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.
- c. Following the continuous coating operations, where viscosity is being used to determine compliance, the permittee shall maintain the records required by paragraph a of this condition as well as the following:
  - i. Solvent and coating additions to the continuous coater reservoir;
  - ii. Viscosity measurements; and
  - iii. Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.
- d. The permittee shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:
  - i. Records demonstrating that the operator training program required by Condition 100.b is in place;
  - ii. Records collected in accordance with the inspection and maintenance plan required by Condition 100.c;
  - iii. Records associated with the cleaning solvent accounting system required by Condition 100.d;
  - iv. Records associated with the formulation assessment plan required by Condition 100.i; and
  - v. Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.
- e. The permittee shall maintain records of the compliance certifications submitted for each semiannual period following the compliance date.
- f. The permittee shall maintain records of all other information submitted with the compliance status report and the semiannual reports.
- g. The permittee shall maintain files of all information (including all reports and notifications) required, recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence,

measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(9 VAC 5-80-110 and 40 CFR §63.806 & §63.10(b)(1), (b)(2), & (c))

**102. Finishing Operations Requirements - (SF-1) – Notification of Compliance** – Each time a notification of compliance status is required, the permittee shall submit to the Director, Southwest Regional Office and/or the Administrator, a notification of compliance status, signed by a responsible official of the company that owns or operates the facility who shall certify its accuracy, attesting to whether the source has complied with Subpart JJ. The notification shall list:

- a. The methods that were used to determine compliance;
- b. The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
- c. The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
- d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified;
- e. An analysis demonstrating whether the facility is a major source or an area source (using the emissions data generated for this notification);
- f. A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
- g. A statement by the permittee as to whether the facility has complied with Subpart JJ as expressed in this permit.

(9 VAC 5-80-110 and 40 CFR §63.9(h))

**103. Finishing Operations Requirements - (SF-1) – Reporting** – Reporting not otherwise required by this permit shall consist of the following:

- a. The permittee when demonstrating initial compliance (when not using a control device) shall submit the compliance status report required by §63.9(h) and Condition 102 no later than 60 days after the compliance date. The report shall include the information required by Condition 97.
- b. The permittee when demonstrating continuous compliance (when not using a control device) shall submit a report covering the previous 6 months of wood furniture manufacturing operations:
  - i. The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.
  - ii. Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

- iii. The semiannual reports shall include the information required by Condition 97, a statement of whether the facility was in compliance or noncompliance, and, if the facility was in noncompliance, the measures taken to bring the facility into compliance.
  - iv. The frequency of the reports required by paragraph b of this condition shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.
  - c. The permittee, when required to provide a written notification by Condition 100.1.iv for exceedance of a baseline level (§ 63.803(l)(4)), shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.
- (9 VAC 5-80-110 and 40 CFR §63.807 & §63.10(d)-(e))

**104. Finishing Operations Requirements – (SF-1) – Monitoring** - The permittee shall perform visible emissions observations on the spray booth exhausts (SFS-1 through SFS-31) at least once each week during normal facility operation. Each visible emissions observation shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions do not appear to exceed ten percent (10%) opacity, no action shall be required. However, if the observed visible emissions appear to exceed ten percent opacity, a visible emission evaluation (VEE) shall be conducted using 40 CFR Part 60, Appendix A, Method 9 for a period of not less than 6 minutes. If the average opacity exceeds 20%, modifications and/or repairs shall be performed to correct the problem and the corrective measures shall be recorded. If such corrective action fails to remedy the opacity problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be performed for a period of at least 18 minutes to determine compliance with the opacity limits specified in Condition 94 of this permit. The visible emissions observer shall be Method 9 certified.

(9 VAC 5-80-110 K)

**105. Finishing Operations Requirements – (SF1) – Recordkeeping** - A record of each visible emissions observation shall be maintained and shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer.

(9 VAC 5-80-110 K)

**106. Finishing Operations Requirements – (SF1) – Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

- a. A material safety data sheet (MSDS), or certified product data sheet, for each coating applied in the spray booths;
- b. The pollutant specific emission factors (F factors) and equations used to calculate actual emission rates from the finishing operations;
- c. The monthly consumption of each coating in the spray booths;
- d. The total weight of furniture processed through the spray booths during each monthly period; and

e. The total monthly hours of operation of the furniture production line.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years..

(9 VAC 5-80-110)

107. **Finishing Operations Requirements – (SF1) – Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

### **VIII. Permit Shield and Inapplicable Requirements**

108. **Permit Shield and Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit. Had there been any requirements specifically identified as being not applicable to this permitted facility, those requirements would also have been covered by the permit shield.

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-110 and 9 VAC 5-80-140)

### **IX. General Conditions**

109. **General Conditions - Opacity** - No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any hour of not more than 60% opacity. Failure to meet these requirements due to the presence of water vapor shall not be seen as a violation.

(9 VAC 5-40-80 and 9 VAC 5-80-110)

110. **General Conditions – Violation of Ambient Air Quality Standards** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.  
(9 VAC 5-20-180-I, 9 VAC 5-80-110, Condition 7 of the SOP issued 1/18/2017, and Condition 26 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

111. **General Conditions – Equipment Maintenance and Operator Training** - In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
  - b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns..
- (9 VAC 5-50-20E, 9 VAC 5-80-110, and Condition 27 of the NSR permit issued 9/11/2002 (as amended 12/06/2002, 4/23/2003, 4/29/2003, 5/14/2003, 1/25/2007, and 10/24/2011))

112. **General Conditions – Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9 VAC 5-80-110 N)

113. **General Conditions - Permit Expiration** - This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.  
(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

114. **General Conditions - Permit Expiration** - The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.  
(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

115. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.  
(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

116. **General Conditions - Permit Expiration** - No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.  
(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

117. **General Conditions - Permit Expiration** - If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.  
(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

118. **General Conditions - Permit Expiration** - The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination

made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

119. **General Conditions -Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
- a. The date, place as defined in the permit, and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of such analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
- (9 VAC 5-80-110)
120. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- (9 VAC 5-80-110)
121. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
  - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
    - i. Exceedances of emissions limitations or operational restrictions;
    - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
    - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
  - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."
- (9 VAC 5-80-110)

122. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31;
- b. The identification of each term or condition of the permit that is the basis of the certification;
- c. The compliance status;
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
- f. Such other facts as the permit may require to determine the compliance status of the source; and
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3\_APD\_Permits@epa.gov

(9 VAC 5-80-110)

123. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Director, Southwest Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 121 of this permit.  
(9 VAC 5-80-110 F. 2)

124. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Director, Southwest Regional Office of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement

prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Southwest Regional Office.  
(9 VAC 5-80-110 and 9 VAC 5-20-180)

125. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110)
126. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110)
127. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9 VAC 5-80-110)
128. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9VAC80-110, 9 VAC 5-80-190 and 9 VAC 5-80-260)
129. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110)
130. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9 VAC 5-80-110)
131. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110)

132. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.  
(9 VAC 5-80-110, 9 VAC 5-80-340 and 9 VAC 5-80-2340)
133. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
  - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
  - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
  - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
  - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9 VAC 5-40-90, 9 VAC 5-50-90 and 9 VAC 5-80-110)
134. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
(9 VAC 5-40-20 E, 9 VAC 5-50-20 E and 9 VAC 5-80-110)
135. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the

permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110)

136. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110)

137. **General Conditions - Reopening for Cause** - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110)

138. **General Conditions - Permit Availability** - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-110 and 9 VAC 5-80-150)

139. **General Conditions - Transfer of Permits** - No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-110 and 9 VAC 5-80-160)
140. **General Conditions - Transfer of Permits** - In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-110 and 9 VAC 5-80-160)
141. **General Conditions - Transfer of Permits** - In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-110 and 9 VAC 5-80-160)
142. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-110, 9 VAC 5-80-190 C and 9 VAC 5-80-260)
143. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-110 and 9 VAC 5-80-80 E)
144. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(9 VAC 5-80-110 and 40 CFR Part 82)
145. **General Conditions - Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR §61.145), Standards for Insulating Materials (40 CFR §61.148), and Standards for Waste Disposal (40 CFR §61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110)

146. **General Conditions - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR §68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(9 VAC 5-80-110 and 40 CFR Part 68)
147. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110)
148. **General Conditions - Emissions Trading** - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
  - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
  - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.  
(9 VAC 5-80-110)